AMENDMENTS TO THE SPECIFICATION

Replace the paragraph beginning at page 10, line 26 with the following new paragraph:

The output from the data processor following application of these algorithms (or other processing) to the captured image is transmitted over a data bus 105 to a secondary data processing unit 106. This data fully describes the road on which the host vehicle is travelling and includes one or more of the following parameters.

Replace the paragraph beginning at page 11, line 23 with the following new paragraph:

A measure of the confidence of the lane parameter estimation is also calculated and transmitted via the bus 105 to the secondary processor 106. This calculation is based on the variance associated with the parameter estimation. The confidence level is particularly important in the event that lane markings have deteriorated or the road layout is very complicated. If a low confidence level is indicated the system may switch to an alternative strategy for target selection.

Replace the paragraph beginning at page 12, line 1 with the following new paragraph:

The secondary processor 106 fuses together the data describing the road layout with data obtained from the vehicle identification sensor(s) in real time. This enables it to be integrated within ACC or other driver assistance systems.

Replace the paragraph beginning at page 13, line 4 with the following new paragraph:

In the first method (shown in the flow diagram of Figure 3 of the accompanying drawings) additional information is obtained from a yaw sensor which measures the rate of yaw of the vehicle. This is used to determine a radius of curvature for the vehicle; accordingly the secondary processor 106 is acting as a vehicle path estimation apparatus. This is projected to the target distance, with the secondary processor 106 acting as a first data processing apparatus. and the The point of intersection of this path with the projected lane markings at the target distance is used to determine the lane in which the host vehicle will be located by the secondary processor 106 acting as a second processing apparatus. This selected lane is then used as in the preceding paragraphs in comparison with the radar data to select the correct lane for the target vehicle.

Replace the paragraph beginning at page 13, line 14 with the following new paragraph:

In a second method, illustrated in the flow chart of Figure 4 of the accompanying drawings the heading angle of the vehicle relative to the lane boundaries when the image is captured may be used, with the secondary processor 106 is acting as a vehicle path estimation apparatus. Again, this can be projected onto the lane boundaries at the distance of the target (with the secondary processor 106 acting as a first data processing apparatus) to determine (with the secondary processor 106 acting as a second processing apparatus) the lane in which the host vehicle will be located.